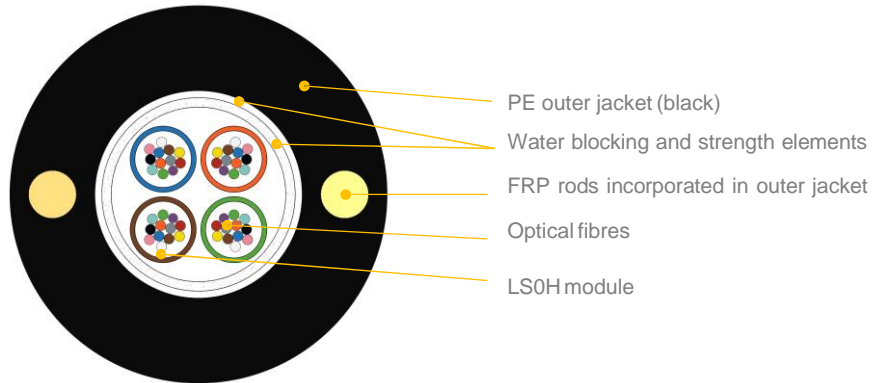


Single HDPE jacket duct cable with Easy Section Modules MDC 12 – 288F (12F modules)



*schematic drawing of 48F configuration, not to scale

APPLICATION:

Duct cable
FTTH access networks
Fully dielectric cable

DESIGN:

LS0H modules with 12 pcs of optical fibres each
Water swellable and tensile strength elements
FRP rods as strength elements (incorporated in outer jacket)
UV resistant black HDPE sheath

DESIGNS:

Variant	Quantity [pcs]				Ø nominal (typ. ±0,3) [mm]	Nominal weight (±10%) [kg/km]	Max allowed tension [N]	Max static tension [N]
	Fibres	Fibres per module	Total elements	Active modules				
1M x 12F	12	12	1	1	5,9 (max 6,4)	29	800	300
3M x 12F	12	12	3	3	7,2 (max 7,6)	37	800	300
4M x 12F	12	12	4	4	7,9 (max 8,4)	44	800	300
6M x 12F	12	12	6	6	10,0 (max 10,5)	57	1500	600
8M x 12F	12	12	8	8	11,3 (max 11,9)	84	1500	600
12M x 12F	12	12	12	12	11,9 (max 12,5)	95	1700	650
18M x 12F	12	12	18	18	13,2 (max 13,9)	114	1700	650
24M x 12F	12	12	24	24	14,9 (max 15,6)	145	2100	800

Other variants, designs, mechanical and environmental properties available on demand

MECHANICAL AND ENVIRONMENTAL CHARACTERISTICS

Crush performance:	1000 [N/10 cm]	IEC 60794-1-2-E3, Δα reversible
Bending performance:	15 x D (10 cycles)	IEC 60794-1-2-E6, Δα reversible
Temperature range:		IEC 60794-1-2-F1,
Installation	-5... +55 [°C]	
Operation	-10... +60 [°C]	Δα ≤ 0,1 dB/km
Transport & Storage	-20... +60 [°C]	Δα reversible

Test	Specification	Method	Requirements
Tensile strength	IEC60794-1-2 Method E1	Mandrel diameter: ≥ 30 x OD Load: as provided in table above	Fibre strain: < 0.6%(during test) ≤ 0.05%(after test) Δα reversible (after test)
		Mandrel diameter: ≥ 30 x OD Sustained Load: as provided in table above	Fibre strain: ≤ 0.25%
Crush resistance	IEC60794-1-2 Method E3	Load: 1000 N / 10 cm / 5 minutes Plate size: 100 mm x 100mm Number of pts: 3 (500mm apart)	Δα ≤ 0.05dB @ 1550nm (after test) No jacket cracking and fibre breakage
Impact resistance	IEC60794-1-2 Method E4	Impact energy: 5J Radius: 300 mm Distance: 1m No. of impacts: 3 at different points 500mm apart	Δα ≤ 0.1dB @ 1550nm (after test) No jacket cracking and fibre breakage
Torsion	IEC60794-1-2 Method E7	Cable length to be twisted: 1m No. of cycles: 5 Twist angle: ± 360° Load: 100N	Δα ≤ 0.1dB @ 1550nm (after test) No jacket cracking and fibre breakage
Bending	IEC60794-1-2 Method E11	Mandrel radius: 12 x OD / 5 turns (wrapped and unwrapped) / 10 flexing cycles <i>All fibres to be monitored</i>	Δα ≤ 0.05dB @ 1550nm (after test) No jacket cracking and fibre breakage
Repeated bending	IEC60794-1-2 Method E6	Sheave Radius: 10 x OD No. of cycles: 10 Flexing speed: 30 cycles/minute Load: 100N	Δα ≤ 0.05dB @ 1550nm (after test) No jacket cracking and fibre breakage
Water penetration	IEC 60794-1-2 Method F5B	Water head: 1m Sample length: 3m (3 samples of each cable) Time: 24 hrs	No water leakage

OPTICAL FIBRES AND LOOSE TUBES COLOUR IDENTIFICATION

Fibres and tubes identification information see **DSH_Colors_CODE_XXXX** document.

EIA/TIA-598 STANDARD FOR FIBRE OPTIC COLOUR CODING

Fibre 01-12	1	2	3	4	5	6	7	8	9	10	11	12
Fibre	Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua
Colour	Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua
Tube/Module	1	2	3	4	5	6	7	8	9	10	11	12
Fibre	Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua
Colour	Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

Fibre 13-24	13	14	15	16	17	18	19	20	21	22	23	24
Fibre	Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua
Colour	Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua
Tube/Module	13	14	15	16	17	18	19	20	21	22	23	24
Fibre	Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua
Colour	Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

Tubes/modules 13 – 24 will have additional marking.

FIBRES PARAMETERS

Optical fibres parameters see **DSH_OFP** document.

MARKING

The following print (white / ink jet or hot stamping) is applied at 1-meter intervals:

- Standard code (product type, fibre type, fibre count)
- Year of manufacture: xxxx
- Length marking in meters
- Cable ID / Drum No

Example: DASAN MDC 48F SM G652D 4M12F
"LASER SYMBOL"

"YEAR OF MANUF" "CABLE MARKING" "BATCH NUMBER"

The accuracy of marking is ±0,5%. Remarking is in accordance with Bellcore GR 20 and supersedes earlier markings. Occasional loss of marking is possible. Cables can be supplied with a range of single mode or multimode fibres and customized print.

PACKING

Cables will be shipped on disposable wooden or treated wooden drums. Both ends of the cable will be capped and accessible for testing. Identification information will be placed on the drum.

DELIVERY LENGTH

Cable length on one reel is 4000m ±100m. Can be changed upon arrangement.